

Typhoon Skip was the first system in the North Pacific to be warned on by both the Naval Western Oceanography Center (NWOC), Pearl Harbor, Hawaii and the Joint Typhoon Warning Center (JTWC), since Tropical Storm Carmen (02) in early April, 1980. (Note: Tropical cyclones east of the dateline are the responsibility of the Central Pacific Hurricane Center (CPHC), Honolulu, Hawaii, but all warnings and alerts are issued in coordination with NWOC.) Skip developed in the central North Pacific and transited the dateline twice. Additionally, the system achieved typhoon intensity twice: once east-southeast, and then later northeast, of Wake Island.

Satellite imagery detected an area of organized convection along the near-equatorial trough on the 28th of August. This disturbance raced west-northwestward for the next forty-eight hours under pressure from the strong mid-Pacific subtropical ridge. On 30 August, despite the 20 kt (10 m/s) plus movement, satellite images showed the cloud system's organization had increased significantly. This prompted the issuance of a Tropical Cyclone Formation Alert (TCFA) at 301730Z by NWOC. Almost immediately the TCFA was followed by the first warning at 301800Z on Tropical Depression 02C. As Skip transited the dateline from east to west, it became the fourth of what would be a five tropical cyclone scenario in the same ocean basin. The other systems that were part of this unusual event were Odessa, Pat, Ruby near Japan and Tess southwest of Guam.

Responsibility was transferred at the dateline from NWOC to JTWC for the second warning. The following warning upgraded Skip to a tropical storm at 310600Z based on satellite intensity estimates (post analysis later showed that Skip had reached tropical storm intensity six hours earlier, at 310000Z). Coincident with intensification Skip also began to slow its forward motion. The system obtained typhoon intensity at 011200Z. A weakening trend set in on 02 September as a mid-level trough approached from the northwest, but Wake Island was still threatened by Skip's approach. Finally, late on the 3rd, Skip turned away from Wake Island and moved towards the north. The Tropical Cyclone then executed an abrupt turn to the east and moved eastward for eighteen hours. During this period the central convection was displaced, by stronger winds aloft, to the east and northeast of the low-level circulation center.

On 05 September, after the passage of a mid-level trough, Skip resumed a northward track through the subtropical ridge and began to intensify and accelerate. A distinct eye developed (see Figure 3-02C-1) as the peak intensity of 80 kt (41 m/s) was reached on 07 September. But this peak was short lived, as increased wind shear aloft from mid-latitude westerlies and interaction with a trailing cold front came into play. Extratropical transition was rapidly completed near the dateline at 072100Z. The warning responsibility was transferred from JTWC to NWOC once again as Skip transited the dateline, this time from west to east, and the last warning followed at 080000Z.

In retrospect, Skip provided its share of forecasting difficulties due to its location in the data sparse central North Pacific and the complex interaction between mid-latitude troughing and the subtropical ridge. Skip also proved to be a challenge for the 54th Weather Reconnaissance Squadron to fly primarily for two reasons: its remote location, which required staging at the islands of Kwajalein and Wake; and the simultaneous occurrence of the multiple tropical cyclone outbreak in the western North Pacific, that stretched aircraft reconnaissance assets to their limit. Once it became apparent that Wake Island was no longer threatened by Skip, aircraft reconnaissance tasking was cancelled.

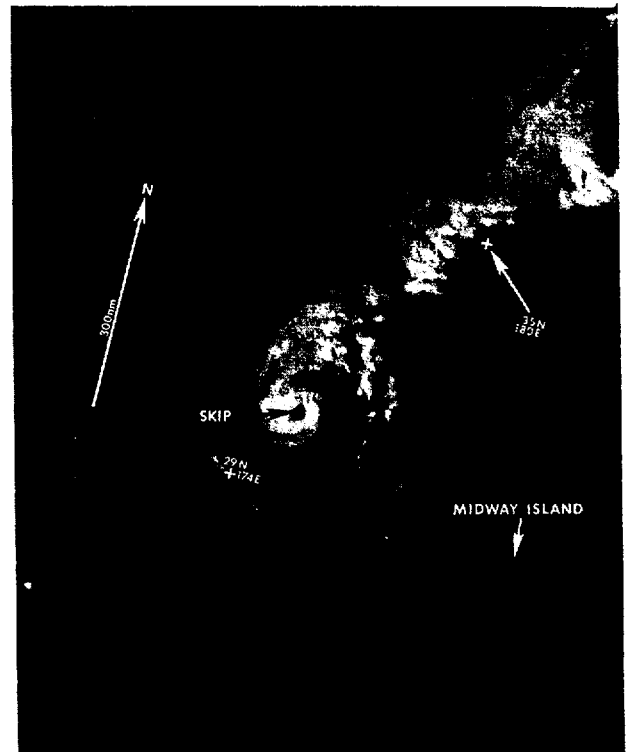


Figure 3-02C-1. Typhoon Skip at maximum intensity with a well defined eye. Skip trails at the end of a cold frontal cloud band that extends to the northeast (070229Z September NOAA imagery).